

ment of the raceme in the Fumariæ with regular flowers furnishes us with no explanation of this circumstance, although it is different. But I have ascertained that the development of the spurs commences late in these plants, when the elongation of the raceme has separated the flowers from each other; no lateral compression is then possible, and the two spurs are freely developed, perfectly equal, and regularly symmetrical.

Lastly, in support of these views, I may add an observation which appears to be still more demonstrative. The primitive, regular form of the flowers of Fumariæ, which subsequently become irregular, is sometimes persistent. In the arboretum of the Botanic Gardens at Nancy I have for three years observed eighteen plants of *Corydalis solida* with all the flowers peloriate; these have hitherto proved completely barren, although the pollen appears to be normal, and abundantly impregnates the two lips of the stigma.

These peloriate flowers are erect and a little spread out; in form, size, and coloration they resemble those of *Dielytra formosa*; so that this anomaly represents the normal type of a genus of the same family. The sepals are small and regular. The corolla presents two perfectly equal lateral spurs, which are conical, obtuse, slightly divergent, and 2 millim. in length—that is to say, much shorter than the single spur of the irregular flower of the same species; the nectaries are equal, short, and bent into a hook. The two outer petals, which bear them, are symmetrical; and this is also the case with the internal petals. The two bundles of stamina are arranged normally. The flowers persist for a longer period than in the type, as is also the case in sterile hybrids.

To what is this return to the regular type due? In order to investigate its causes, I dug up, on the 10th February, 1864, two specimens of these plants which were still buried in the soil, and compared them with other individuals of the same species, but with irregular flowers. The latter already presented their single spur pretty well developed; the peloriate flowers, on the contrary, presented no trace of a spur. On other plants, I have followed the gradual development of the flowers; and it was only on the 16th March, when the stem had issued from the earth, the raceme had become free from its spathiform envelope, and the perfectly free flowers could no longer undergo any compression, that the spurs began to be developed. Thus, in this peloriate flower, the same things take place as in the genera of Fumariæ with normally regular flowers.

Hence it appears to be evident that the lateral compression of the base of one of the margins of the flower at the moment of the development of the nectaries must be the cause of the abortion of one of those organs, and of the spur in which it is enclosed; from this arises the irregularity of the flower.—*Comptes Rendus*, December 19, 1864, p. 1039.

*Note on Sternothærus Adansonii from West Africa.*

By DR. J. E. GRAY, F.R.S., &c.

On the 26th of May last year I read a paper before this Society

on the species of *Sternothæri* then in the British Museum, and I divided them into sections or subgenera. In that paper I took no notice of *Sternothærus Adansonii*, as that species was only described from a shell in the Paris Museum, said to have come from the Cape de Verd Islands, which had been noticed by Schweigger under the name of *Emys Adansonii*.

We have just received, through Mr. Dalton, two specimens of a species of the genus from the west coast of Africa, which is very distinct from any of the others, and, I have little doubt, is identical with the shell in the Paris Museum. As it is in a perfect state and well preserved, I think it well to give a new description of it.

It belongs to the subgenus *Notoa*, the head being short, and the temples covered with a large triangular space of small polygonal shields.

The hinder part of the sternum of the animal is narrower, and more like that of the genus *Pelomedusa* than any of the other species of the genus *Sternothærus*; but the front lobe is distinctly moveable, and united by a straight suture.

#### STERNOTHÆRUS ADANSONII.

Shell oblong ovate, depressed, rather wider behind than in front; dark olive, with very close, regular, uniform radiating black lines, sometimes broken up into small dark spots; sternum and undersides of the margin yellow; the areola of the sternal plate square, blackish.

The head depressed, with very close, nearly uniform, unequal black lines; the frontal plate very large, with a triangular patch of small scales on the temple, reaching to over the front edge of the ears; the lips white; the throat pale; the feet olive above, pale beneath; claws  $5/5$ , olive, with a yellow streak in the middle of the upper surface.

The first vertebral plate much longer than wide, narrow behind, with a blunt keel ending in a rounded tubercle behind. The second, third, and fourth vertebræ about as wide as long, with a sharp keel, ending in an acute tubercle near the hinder edge of each shield; the fifth vertebra like the first, but only very slightly keeled. The front marginal plate wide, those over the hinder legs rather wider, and those on the sides of the shell very narrow. The gular plate small, triangular; the intergular one lozenge-shaped, narrowed in front; the pectoral plates narrowed and truncated at the inner edges.

*Hab.* West coast of Africa (*Dalton*).

The species of this genus seem to have a confined range. Thus there are two species of the first subgenus (*Tanoa*)—one from S. Africa and Natal, and the other from Western Africa; in the same manner there are two species of the second subgenus (*Notoa*)—one from Madagascar and the other from the West African coast. Thus,

#### 1. *Tanoa*.

*S. sinuatus* . . . . . S. and E. Africa . . . . . *S. subniger*.  
*S. Derbyanus* . . . . . West Africa. . . . . *S. Adansonii*.

#### 2. *Notoa*.

*Proc. Zool. Soc.* June 28, 1864.